Supreme Court, U.S.
FILED
JUN 15 2000
OFFICE OF THE CLERK

(12)

No. 99-1996

In The

SUPREME COURT OF THE UNITED STATES

J.E.M. AG Supply, Inc.
(doing business as Farm Advantage, Inc.),
Farm Advantage, Inc., Larry Benz,
Merle Pruett (doing business as Siouxland Seeds, Inc.),
Kevin Wolfswunkel, Tim Kamstra, and
Tom Eischen Seed & Chemicals,
Petitioners,

v.

Pioneer Hi-Bred International, Inc.
Respondent.

On Writ of Certiorari to the
United States Court of Appeals
for the Federal Circuit

BRIEF *AMICUS CURIAE* OF AMERICAN CROP PROTECTION ASSOCIATION IN SUPPORT OF AFFIRMANCE

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QUESTION PRESENTED

Are utility patents issued under 35 U.S.C. § 101 granting the right to exclude others from sexually reproducing plants or plant varieties, or from selling or using plants or plant varieties reproduced by means of sexual reproduction (by seed), invalid because the Plant Variety Protection Act of 1970, 7 U.S.C. § 2321, *et seq.*, and the Plant Patent Act of 1930, 35 U.S.C. §§ 161-164, are the exclusive means of obtaining a federal statutory right to exclude others from reproducing, selling, or using plants and plant varieties?

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STATEMENT OF INTEREST OF *AMICUS CURIAE*[1]

Amicus American Crop Protection Association ("ACPA") is a not-for-profit trade association organized in 1933. ACPA is the not-for-profit trade organization representing the major manufacturers, formulators and distributors of crop protection and pest control products, including conventional and biotechnology-derived seeds and plants with crop production and protection characteristics. ACPA member companies produce, sell and distribute virtually all the scientific technology products used in crop production by American farmers. Annually, ACPA member companies spend hundreds of millions of dollars to research and develop crop production and protection innovations to find scientific solutions to age-old challenges. ACPA member companies research, test and develop biotechnology innovations, including plants used in the production and protection of food and fiber crops, as well as non-food goods, such as plastics and pharmaceuticals. Patent protection is essential to the continued viability and growth of biotechnology research and development.

AUTHORITY TO FILE

Both parties have given permission for the filing of this *amicus* brief. Copies of the permission letters are attached to the proof of service submitted to the Clerk.

SUMMARY OF ARGUMENT

The issues in this case are directed at the core of plant variety research. Annually, hundreds of millions of dollars

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[1] No counsel for a party authored this brief, in whole or in part, and no person or entity other than *amici curiae*, or their counsel, made a monetary contribution to the preparation or submission of this brief.

are invested in research and development of new plants and plant species. The research is complex and the development process is long and expensive. Success is limited. And, protection, in the form of patent protection, for the fruits of the investment of time and resources is critical to the continued development of new inventions in this growing science.

The Utility Patent Act, 35 U.S.C. § 101, *et seq.*, and the Plant Variety Protection Act, 7 U.S.C. § 2321, *et seq.*, together, provide the minimum necessary protections for this science. Together, the Utility Patent Act and the Plant Variety Protection Act present complimentary statutory schemes commensurate with the level of scientific inventiveness associated with a new product. The Utility Patent Act provides greater protection for the greater scientific achievement of developing not only a new product, but a new product that is not obvious. In contrast, a newly developed product that is deemed "obvious," is granted no protection under the Utility Patent Act, but may be eligible for the lesser protections of the Plant Variety Protection Act. This Act, however, contains several exemptions that permit competitors direct access to the new product for further research and development by the competitors for the benefit of the competitors. Thus, the two statutory schemes provide different protections for different products. The two statutes do not conflict, but compliment each other. Together, these two statutes have fostered significant growth and investment in the science of plant varieties.

Petitioners would deny all new plant variety inventions the protections of the Utility Patent Act, and limit all new inventions to the lesser protections of the Plant Variety Protection Act. Congress has issued no such mandate. Absent careful consideration of the consequences

of such a denial of the heightened protections for new plant variety research and a legislative enactment, the existing highly successful two-tiered protection for plant variety research and development should not be disregarded.

ARGUMENT

I. *Introduction*

The issue before this Court is one of fairness to the increasing number of inventors of nonobvious plant varieties. The Petitioners, in order to advance their own self-interest in reselling plant seed without the permission of the inventors, advocate that all inventors of nonobvious plant varieties should be stripped of the privileges and protections of the utility patent regime of 35 U.S.C. § 101 *et seq.* ("Section 101" and "Utility Patent Act"), and should be permitted only the lesser protections afforded by the Plant Variety Protection Act ("PVPA"), 7 U.S.C. § 2321, *et seq.* This Court previously has stated that Section 101 reflects Congress's understanding that patentable subject matter "includes[s] anything under the sun that is made by man." *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (citation omitted). Inventions of nonobvious plant varieties are necessarily included in that, and should not be singled out from all other inventions under the sun for lesser protection based solely on an argument that Congress implicitly intended to do so. Rather, as with all nonobvious inventions, nonobvious plant varieties should remain eligible for the full protection afforded by Section 101.

Section 101 and the PVPA are two independent and complimentary statutory schemes that provide protection for two different levels of scientific achievement. While the protections afforded by the Section 101 and PVPA may

appear to overlap in some respects, there are substantial differences between the two statutory regimes in their scope of protection that correlate with the levels of the inventive acts that occur. Section 101, with its "patentability" standard, generally provides greater infringement protection for nonobvious inventions. 35 U.S.C. § 271. The PVPA, with its "certifiability" standard, generally provides lesser infringement protection for distinct sexually reproduced plants. 7 U.S.C. § 2402(a). The two statutes together ensure that the level of protection obtained for a particular plant variety is commensurate with the level of inventiveness achieved in creating the variety.

II. *PVPA Certificates vs. Utility Patents: Different Standards and Different Protections*

The principal practical distinction between the PVPA and Section 101 for plant variety scientists is the higher level of protection granted by Section 101 and the concomitant higher level of inventiveness mandated by Section 101. According to the Utility Patent Act, before an inventor may be entitled to utility patent protection, there must be proof that the invention is (1) new, (2) useful, and (3) nonobvious, 35 U.S.C. §§ 101-103, with nonobviousness the most difficult factor to establish. Thirty-five years ago, in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), this Court laid out the factual inquiries for determining whether an invention meets the high burden of nonobviousness, an inquiry still in use today. *See* Manual of Patent Examining Procedure (M.P.E.P.) § 2141 (7th ed. 2000). The traditional *Graham* factual inquiry for nonobviousness includes (1) determining the scope and content of the prior art, (2) determining the differences between the prior art and the claims at issue, and (3) determining the level of ordinary

skill in the art. 383 U.S. at 17. Only when this factual inquiry demonstrates that an inventive act has taken place is a product entitled to Section 101 patent protection.

The *Graham* factual inquiries, when applied to plant inventions, establish an equally high burden. *See Yoder Bros., Inc. v. California-Florida Plant Corp.*, 537 F.2d 1347 (5th Cir. 1976).[2] Tailoring the *Graham* factual inquiries for plant inventions, the Fifth Circuit inquired as to "(1) the characteristics of prior plants of the same general type, both patented and nonpatented, and (2) the differences between the prior plants and the claims at issue." 537 F.2d at 1379. The Fifth Circuit, noting that the best approach to the nonobviousness requirement for plant inventions is by reference to the underlying constitutional standard of "invention" which ensures that minor improvements will not be granted patent protection, proposed the following focus for determining whether a patent should be granted for a particular plant:

> If the plant is a source of food, the ultimate question might be its nutritive content or its prolificacy. A medicinal plant might be judged by its increased or changed therapeutic value. Similarly, an ornamental plant would be judged by its increased beauty and

[2] In *Yoder Bros.*, the 5th Circuit examined patentability under the Plant Patent Act, 35 U.S.C. §§ 161-164 (which covers asexually-reproducing plants), and not the Utility Patent Act, 35 U.S.C. § 101 *et seq.* However, the Plant Patent Act explicitly provides that the provisions of the Utility Patent Act apply to patents for plants. 35 U.S.C. § 161. Thus, a determination of patentability with regard to plants takes, as its starting point, the general requirements for patentability, and then applies them to plants. 537 F.2d at 1377; *see also Imazio Nursery, Inc. v. Dania Greenhouses*, 69 F.3d 1560, 1563-64 (Fed. Cir. 1995).

> desirability in relation to the other plants of its type, its usefulness in the industry, and how much of an improvement it represents over prior ornamental plants, taking all of its characteristics together.

Id.[3]

The requirement for nonobviousness establishes a "bright line" distinction between those lesser achievements in plant breeding which produce a merely *novel* variety, and those greater achievements in plant breeding which produce a *nonobvious* variety of plant. For the former, PVPA protection may be available, but no utility patent may issue. Under the PVPA, a plant variety scientist is entitled to protection for a plant variety if it is (1) new; (2) distinct from other varieties in existence; (3) uniform, such that variations are describable, predictable, and commercially acceptable; and (4) stable, so that the variety will remain unchanged by reproduction with regard to the essential and distinctive characteristics of the variety. 7 U.S.C. § 2402(a).

Reflecting different levels of scientific achievement, the PVPA and Section 101 provide markedly different levels of protection. Under the PVPA, Section 2541(a) enumerates the acts constituting infringement of a plant variety certificate as follows:

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[3] The United States Patent and Trademark Office similarly recognizes the applicability of utility patent law to plant inventions, instructing its examiners that applications for plant inventions examined under the Plant Patent Act "are subject to the same examination process as any other national application," and "[a]s such, the statutory provisions with regard to patentable subject matter, utility, novelty, obviousness, disclosure, and claim specificity requirements apply (35 U.S.C. 101, 102, 103 and 112)." M.P.E.P. § 1608.

> Except as otherwise provided in this subchapter, it shall be an infringement of the rights of the owner of a protected variety to perform without authority, any of the following acts ...:
>
> (1) sell or market the protected variety, or offer it or expose it for sale, deliver it, ship it, consign it, exchange it, or solicit an offer to buy it, or any other transfer of title or possession of it;
>
> (2) import the variety into, or export it from, the United States;
>
> (3) sexually multiply, or propagate by a tuber or a part of a tuber, the variety as a step in marketing (for growing purposes) the variety;
>
> (4) use the variety in producing (as distinguished from developing) a hybrid or different variety therefrom;
>
> (5) use seed which had been marked "Unauthorized Propagation Prohibited" or "Unauthorized Seed Multiplication Prohibited" or progeny thereof to propagate the variety;
>
> (6) dispense the variety to another, in a form which can be propagated, without notice as to being a protected variety under which it was received;
>
> (7) condition the variety for the purposes of propagation, except to the extent that the conditioning is related to the activities permitted under section 2543 of this title;

(8) stock the variety for any of the purposes referred to in paragraphs (1) through (7);

(9) perform any of the foregoing acts even in instances in which the variety is multiplied other than sexually, except in pursuance of a valid United States plant patent; or

(10) instigate or actively induce performance of any of the foregoing acts.

Id.

In the Utility Patent Act, 35 U.S.C. § 271(a) (1984 & Supp. 2000) succinctly describes the principal acts constituting infringement of a utility patent, as follows:

> Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.

Id.

Thus, while both the PVPA and Utility Patent Act prohibit making, using, selling, offering for sale, or importing the protected property, the exceptions to the PVPA in practical effect dramatically reduce the protection of the PVPA.

Section 2542 of the PVPA provides a grandfather clause which permits persons to reproduce and sell a protected variety if they have developed that variety more than one year prior to the effective filing date of an adverse PVPA certificate application. Utility patent law has no

comparable provision, as under 35 U.S.C. § 102(b) the public use of an invention in the United States more than one year prior to the date of a United States application for utility patent is novelty-defeating prior art.

Section 2543 of the PVPA allows a farmer to save seed produced from a protected variety, for replanting on his own land, or for sale to another farmer should he change his plans for replanting. *See Asgrow Seed Co. v. Winterboer*, 513 U.S. 179 (1995). Utility patent law has no comparable exception, as under the utility patent law any resale violates the statutory protection.

Most significantly, Section 2544 of the PVPA provides that the use and reproduction of a protected variety for breeding or other bona fide research is not considered infringing. This commercial research exemption is the most contrary to utility patent law. The commercial research exemption exposes a PVPA certificate holder's "protected" invention to competitors. Specifically, the commercial research exemption allows for the use and reproduction of a protected variety by a competitor for the commercial purposes of "designing around" the variety. The resultant progeny may itself be subject to PVPA certification by the competitor.[4] The Utility Patent Act does not provide a broad

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[4] Congress sought to limit the potential for abuse associated with the commercial research exemption in 1994 amending the PVPA to provide that varieties "essentially derived" from protected varieties are infringing under the PVPA. An "essentially derived variety" is predominantly derived from another variety (the "initial variety") and retains the expression of the essential characteristics that result from the genotype of the initial variety. 7 U.S.C. § 2541(c)(1). However, the issue of how to distinguish an essentially derived (i.e., infringing) variety from a non-essentially derived (i.e., non-infringing) variety is not settled, and as such this amendment provides little added protection for plant variety scientists. Indeed, one commentator has noted that it is questionable

research exemption, permitting research only in certain narrow circumstances relating to submissions to the FDA. *See* 35 U.S.C. 271(e).

Thus, the PVPA strikes one balance between the property rights of breeders of a novel plant variety and the needs of society for accessibility to that variety. The PVPA imposes less stringent requirements for certifiability because of the absence of the nonobviousness requirement for patentability and in exchange provides the certificate holder with significantly less protection for the certified variety, as demonstrated by the PVPA's commercial research exemption.

The PVPA, however, is no substitute for utility patent protection available for nonobvious plant varieties. Where a greater inventive act has taken place and a *nonobvious* plant variety is invented, the PVPA, with its commercial research exemption permitting direct competitors unrestricted access, is grossly unfair. In no other industry is an invention which fully complies with the Utility Patent Act's heightened nonobviousness requirement and is fully disclosed by the Utility Patent Act's written description and enablement requirements subjected to such a commercial research exemption. Indeed, Congress has refused to carve out even a non-commercial, *university* research exemption to utility patent protection. *See Infigen, Inc. v. Advanced Cell Tech., Inc.*, 65 F. Supp. 2d 967, 981 (W.D. Wis. 1999).[5] Absent

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whether the 1994 amendment will actually deter abuse of the commercial research exemption. *See* Peter J. Goss, *Guiding the Hand That Feeds: Toward Socially Optimal Appropriability in Agricultural Biotechnology Innovation*, 84 Cal. L. Rev. 1395, 1410 (1996).

[5] "[I]t is up to Congress to decide whether there should be an infringement exemption for university-based research laboratories. So

clear Congressional action, inventors of nonobvious plant varieties should not be subject to the limited protection offered by the PVPA. Rather, as with all other inventions under the sun, inventions of plant varieties that achieve the high standard of nonobviousness should remain eligible for the broad based protection afforded by the utility patent statute.

III. *The Rights Afforded By PVPA Certificates and Utility Patents Are Independent and Complimentary*

The PVPA and Section 101, together, form a two-tiered protective scheme necessary for the emerging plant variety science. Together, the PVPA and Section 101 offer levels of protections commensurate with the achievement of the science and degree of inventiveness involved in the new plant variety.

For example, as discussed throughout this *amicus* brief, the level of inventiveness required by Section 101 and the PVPA are dramatically different. A discovery not deemed "nonobvious," and therefore not protectable under Section 101, still may be certified under the PVPA and made available to the scientific community for further enhancement under the PVPA's commercial research exception.

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far, Congress has not seen fit to grant one. *See, e.g.*, Patent Competitiveness and Technological Innovation Act of 1990, H.R. 5598, 2101st (sic) Cong. (1990), which was never passed but which, among other things, proposed exemptions from infringement liability for university research." *Id.*

When plant variety science discovers a new, useful and nonobvious variety, Section 101 protection is available. In exchange for the heightened protection, however, a fully enabling disclosure announcing to the world how to make the invention must be provided. *See* 35 U.S.C. § 112. As a result, upon expiration of the patent, the invention is in the public domain. The PVPA does not place the discovery in the public domain because there is no enablement requirement under the PVPA. *See* 7 U.S.C. § 2402(a).

Although more difficult to obtain, Section 101 protection for nonobvious inventions is broader in scope than the PVPA. For sexually reproduced plants, for example, the protection of Section 101 may extend to a class or species of plants. In contrast, the PVPA protection is limited to the particular variety described or deposited. *See* 7 U.S.C. § 2402(a). Thus, these different features of the PVPA and Section 101 create mutually compatible - - not contradictory - - levels of protections for different levels of scientific achievement.

The Petitioners cite two cases for the proposition that the PVPA and the utility patent statute conflict: *Ropat Corp. v. McGraw-Edison Co.*, 535 F.2d 378 (7th Cir. 1976), and *TrafFix Devices, Inc. v. Marketing Displays, Inc.*, 121 S. Ct. 1255 (2001) (Pet. Br. 44-47). Unlike the statutes in the case at bar, each of Petitioners' cited cases involves statutory schemes that do not provide different levels of complimentary protection based on the degree of inventiveness achieved in creating the protectable subject matter. Rather, as in the *TrafFix* case, the pursuit of protection under one statutory scheme may factually bar protection under the other scheme. In the *TrafFix* case, this Court addressed whether a utility-patented mechanical device was also entitled to trade dress protection. 121 S. Ct.

at 1258. Citing the "well-established rule that trade dress protection may not be claimed for product features that are functional," this Court held that the device was not entitled to trade dress protection, due to the functional nature of the device as strongly evidenced by the utility patent. 121 S. Ct. at 1259-60. Thus, the pursuit of protection under the utility patent statute factually barred protection under trademark law, since the functional attributes that led to utility patent protection undercut the application for trademark protection for those same attributes.

In *Ropat,* the issue of a conflict between the utility patent and design patent statutory schemes was neither presented nor addressed. In fact, there can be no conflict between utility patent law and design patent law, because "[i]n a design patent application, the subject matter which is claimed is the design embodied in or applied to an article of manufacture (or portion thereof) and not the article itself." M.P.E.P. § 1502 (*citing Ex parte Cady*, 1916 C.D. 62, 232 O.G. 621 (Comm'r Pat. 1916) (emphasis in original). No design patent can be obtained if the claimed design is dictated solely by the utilitarian functionality of the article, because the design is not "ornamental," as required by 35 U.S.C. § 171. *See Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996). Thus, unlike the case at bar, the utility patent statute and the design patent statute do not provide different levels of protection based on the degree of inventiveness achieved in creating the protectable subject matter.

The PVPA and Section 101 provide two complimentary statutory schemes providing protection appropriate for the invention based in large part on the degree of inventiveness achieved in creating the protectable subject matter. There is no conflict between the PVPA and

Section 101 in the eyes of the plant variety scientists. Each statutory scheme has advantages. Each has disadvantages. Each has benchmarks that will or will not be achieved by the science.

CONCLUSION

The Petitioners advocate restricting the protections available to inventors of nonobvious plant varieties. Such inventors should not be singled out for lesser protection without specific authorization of Congress. Rather, as with all other inventions, nonobvious plant varieties should remain eligible for the utility patent protection.

Under the current system, the scope of protection available to inventors of plant varieties correlates with the level of inventive act that has taken place; the lesser standard of the PVPA provides generally lesser infringement protection, while the greater standard of the utility patent statute provides generally greater infringement protection. The two-tiered system ensures that the level of protection obtained for a particular plant variety is commensurate with the level of inventiveness achieved in creating the variety.

The two-tiered system of protections and exemptions has fostered extraordinary growth in plant variety science. Denial of the Utility Patent Act's heightened protections for the higher scientific achievement of nonobviousness would strike at the core of this industry's research and development community.

For all of the reasons discussed in this *amicus* brief, the Court should confirm that patents issued under 35 U.S.C. § 101 for plants and plant varieties, like all other inventions under the sun, are valid.

Respectfully submitted,

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